



EPA CLEAN SCHOOL BUS

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Agenda

Overview of the Clean School Bus (CSB) Program

CSB Program Goals and Guidelines

2022 CSB Rebates

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Overview of the 2023 CSB Grants

Future Funding Opportunities

Overview



**EPA CLEAN
SCHOOL BUS**

Under **Title XI: Clean School Buses and Ferries**, the Bipartisan Infrastructure Law (BIL) provides **\$5 billion** over five years (FY22-26) for the replacement of existing school buses with zero-emission and clean school buses.

These new clean school bus replacements will produce either zero or low tailpipe emissions compared to their older diesel predecessors.

School bus upgrades funded under this program will result in cleaner air on the bus, in bus loading areas, and in the communities in which they operate.

The first funding opportunity was the **2022 Clean School Bus Rebates Program**. The second funding opportunity is the **2023 Clean School Bus Grants Program Notice of Funding Opportunity (NOFO)**, which opened on April 24, 2023 and will close on August 22, 2023.



Clean School Bus Program Goals

Engage

- Engage stakeholders in program development

Evolve

- Evolve the programs based on successes and lessons learned

Promote

- Promote cost parity between bus technologies

Allow

- Allow school districts to apply for multiple funding opportunities

Maximize

- Maximize the number of zero emissions (ZE) and clean buses that get funded

Ensure

- Ensure a broad geographic distribution of awards

2022 Clean School Bus Rebate Program



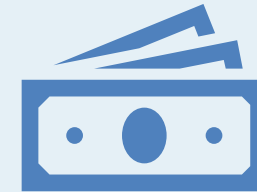
2022 Clean School Bus Rebates



Streamlined program development, application, selection, and funding processes



Straightforward rules - rebates are for bus replacements and infrastructure only



Quickest timeline fleets to receive funding

2022 CSB Rebate Program Eligible Applicants*

State and local governmental entities responsible for:

- 1) providing bus service to 1 or more public school systems; or 2) the purchase of school buses

Nonprofit School Transportation Associations

Indian Tribes, Tribal Organizations, or tribally controlled schools

Eligible Contractors



*The [FY 2023 Consolidated Appropriations Act \(aka the Omnibus funding bill\)](#) included amendments to the CSB program that impacts the list of eligible applicants in CSB funding opportunities that follow the 2022 CSB Rebate Program; additional information will be provided with each future funding round.



2022 CSB Rebate Program Prioritization Criteria*

*Please note that program criteria are specific to the 2022 CSB Rebate Program; refer to future rounds of CSB funding for applicable criteria for each funding opportunity

- **High-need school districts and low-income areas**
School districts listed in the Small Area Income and Poverty Estimates (SAIPE) School District Estimates for 2020 as having **20% or more students living in poverty**

School districts not listed in the SAIPE data, including most charter schools, **that self-certify as having 20% or more students living in poverty.** *EPA may ask for supporting documentation to confirm this self-certification.*

School districts located in the U.S. Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands
- **Rural school districts**
School districts identified with locale codes “43-Rural: Remote” and “42-Rural: Distant” by the National Center for Education Statistics (NCES)
- **Tribal school districts**
Bureau of Indian Affairs funded school districts and school districts that receive basic support payments for children who reside on Indian land



School Bus Replacement Funding



Up to 25
buses per
school district

The maximum rebate amount per bus is dependent on:

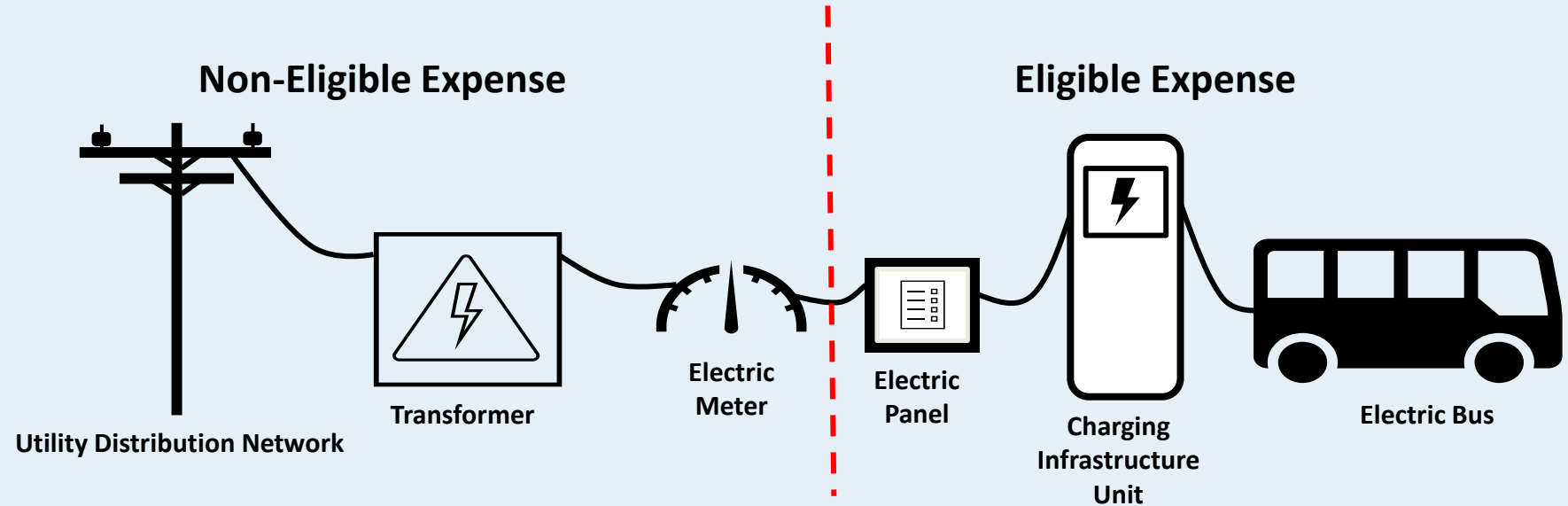
- Bus Fuel Type
 - Zero-emission
 - Electric
 - Low-emission
 - Propane
 - Compressed Natural Gas (CNG)
- Bus Size
- Meets one or more prioritization criteria

EPA will not disburse rebate funds in excess of the actual cost of the replacement buses and eligible infrastructure **and any costs above the maximum funding level are the sole responsibility of the applicant/awardee.**



Infrastructure Funding

Zero-emission buses only



EPA will not disburse rebate funds in excess of the actual cost of the replacement buses and eligible infrastructure **and any costs above the maximum funding level are the sole responsibility of the applicant/awardee.**



2022 CSB Rebate Applications

- Nearly **\$4B** in applications for over 12,000 buses
- More than **90%** of requests were for **electric buses**
- Majority of applicants met priority criteria as low-income, rural, or Tribal
- Awards were announced **October 26, 2022**

2022 CSB Rebate Awards

- EPA is awarding up to **\$965M** in rebates (nearly double the amount of proposed funding)
- This will fund around **2,500 buses** in about **400 school districts**
- Once applicants received their official selection letter, they could proceed with purchasing new buses and eligible infrastructure.

2022 Clean School Bus Rebate Awards Map

Total Awarded

\$919,884,000.00

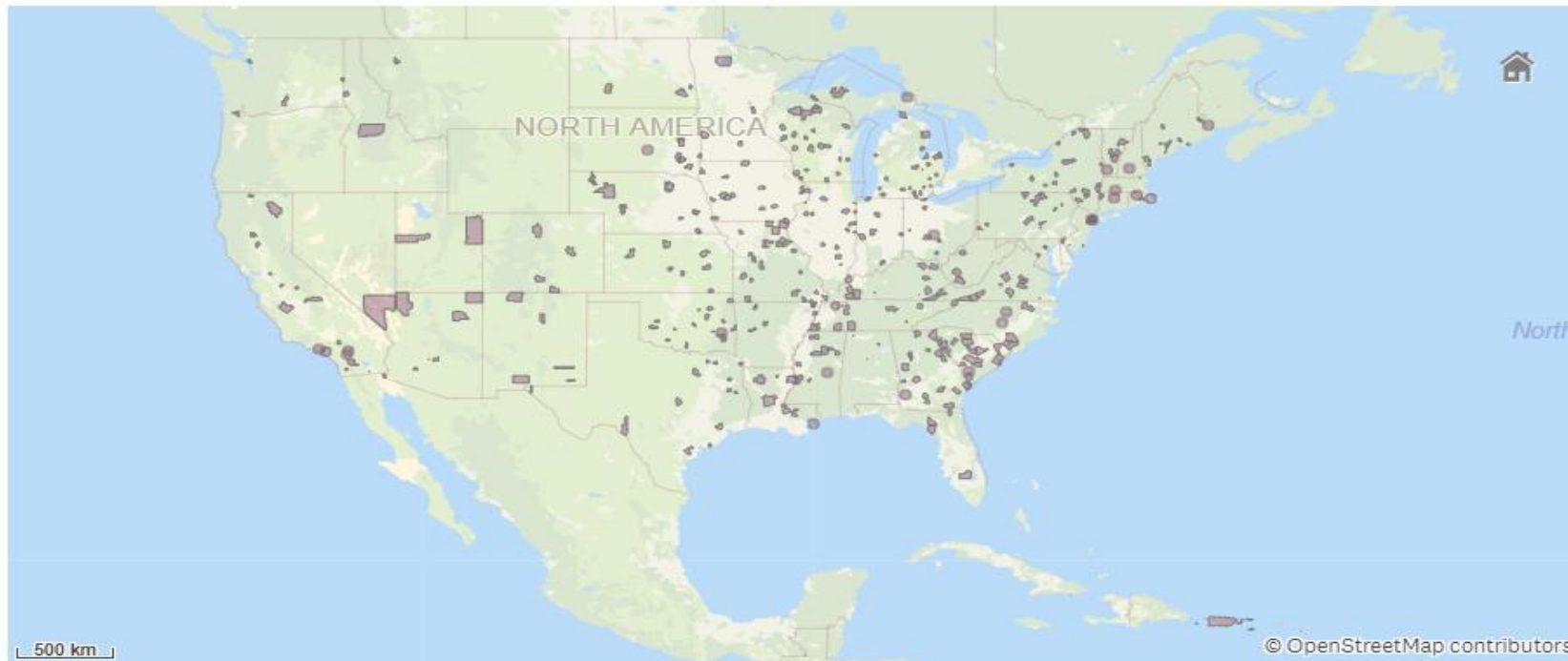
Total Number of Selec...

397

Total Number of Buse...

2,490

School District Location



- After all selected applicants were notified of their award, a small number of selectees withdrew from the program.
- EPA redistributed funds from selectees who withdrew, awarding the funds to eligible applicants who had initially been placed on the program's waitlist.
- EPA has stopped pulling applicants off the waitlist as of Feb. 2023.
- \$948 million of the total \$965 million in rebate awards has been reserved for selectees during this funding cycle.
- Any remaining funding will be distributed to the selected applicants during future CSB funding opportunities.

*Results available as of 6.9.23

epa.gov/cleanschoolbus/awarded-clean-school-bus-program-rebates

2022 CSB Rebates PRF Submissions

Payment Request Forms (PRFs) for the 2022 CSB Rebate Program were due **April 28, 2023**.



- EPA is disbursing funds after thorough review of submitted PRF documents.
- EPA is also working selectees who requested extensions to submit PRF documentation to ensure they have support to address any challenges they're facing



- The most common challenges reported by selectees
- **working with utilities to plan for charging infrastructure**
 - planning for **bus and infrastructure prices that exceed Rebate funds**
 - Getting **timely approvals from school boards/other necessary entities.**

Recipient Resources



2022 CSB Rebate Selectee Office Hours

Sessions Hosted

- EPA has held 3 office hour sessions for 2022 CSB Rebate selectees
- Topics covered include
 - **Payment Request Form submission details**
 - connecting with **utilities**
 - choosing **charger and bus types**,
 - **navigating common hurdles** faced by selectees

JOET Involvement

- Staff from the Joint Office of Energy and Transportation (JOET) have been included in office hours
- JOET has been able to provide selectees with technical assistance

2022 CSB Rebate Selectee Office Hours

Lessons Learned

- Many selectees require assistance in planning the infrastructure portion of their projects
- Important to emphasize the need to start planning for utility and infrastructure upgrades early
- Need to connect selectees with JOET for help analyzing their specific routes, climate, etc. and selecting buses and chargers

EPA and the Joint Office of Energy and Transportation are partnering to provide these resources:

Coordinating with electric utilities

Identifying available funding and incentives

Analyzing charging infrastructure needs

Conducting a route analysis and planning routes

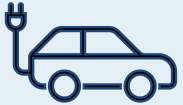
Providing training and workforce development

Resiliency (V2X)

Analyzing energy needs and grid impact

Identifying solar and battery storage opportunities

Utility Engagement Pledge with EEI and BEL



A primary barrier school districts are facing is uncertainty around charging infrastructure deployment and how to engage with electric companies

- **Installation of charging infrastructure can undergo long lead times and requires close coordination with the local utility**



EPA is working with national electric utility company organizations to support school districts through a Utility Pledge that includes:

- **Facilitating Communication Between Electric Providers and School Districts**
- **Providing Technical Support and Assistance**
- **Increasing Funding and Deployment**



Additional information on the Utility Pledge and other technical assistance resources are available on: [epa.gov/cleanschoolbus technical assistance](https://www.epa.gov/cleanschoolbus/technical-assistance)

Resources available on CSB Website to Assist With Fleet Electrification:

EPA – Clean School Bus Program

- [Technical Assistance Workforce Development and Training](#)
- [EV Charger Energy Star Listings](#)
- [Charging and Fueling Infrastructure Resources](#)

Joint Office of Energy and Transportation

- [AFDC School Transportation Page](#)
- [Rural EV Toolkit](#)
- [NEVI Utility Finder](#)
- [Charging Forward: Rural EV Toolkit](#)
- [ESB Charging Station Planning Form](#)

Non-Federal Resources

- [2023 STN Buyer's Guide](#)
- [Preparing to Plug In Your Bus Fleet](#)
- [Zeroing in on Electric School Buses](#)
- [Power Planner for Electric School Bus Deployment](#)
- [ESB US Market Study and Buyer's Guide](#)

CSB Feedback Efforts and Lessons Learned

Feedback Efforts	Summary of Feedback
<ul style="list-style-type: none">• CSB Grants and Rebates Listening Sessions• Stakeholder meetings with EPA staff• Stakeholder input received through CSB helpline	<ul style="list-style-type: none">• Rebate program worked for a majority of school districts• Gaps in the rebate program:<ul style="list-style-type: none">• Larger fleets limited by 25-bus maximum• Scrappage (i.e., some districts don't own buses to scrap)• Prioritization (i.e., differing opinions on prioritization criteria and funding for non-prioritized school districts)

2023 Clean School Bus Grant Program Is Now Open!

***Application packages must be submitted to EPA via
Grants.gov no later than 8/22/23 at 11:59 p.m. ET.
For more information, please visit
www.epa.gov/cleanschoolbus.***

CSB Rebates versus CSB Grants

While both grants and rebates provide selectees with award funds **prior** to purchasing eligible buses and infrastructure, there are a few differences between these types of funding programs:

	Rebates	Grants
Application Process	Quick and simple application process	Longer, more detailed application process
Selection Process	Selectees determined by a random number generated lottery process	Recipients are selected based on evaluation of application materials
Project period support, flexibility, and duration	Shorter project period; less support and flexibility in funding provided to applicants	Longer application period; may offer more support for applicants during the project, as well as flexibility in funding – such as providing funds for training and administrative costs - and timing of the project such as longer project periods to complete the project.

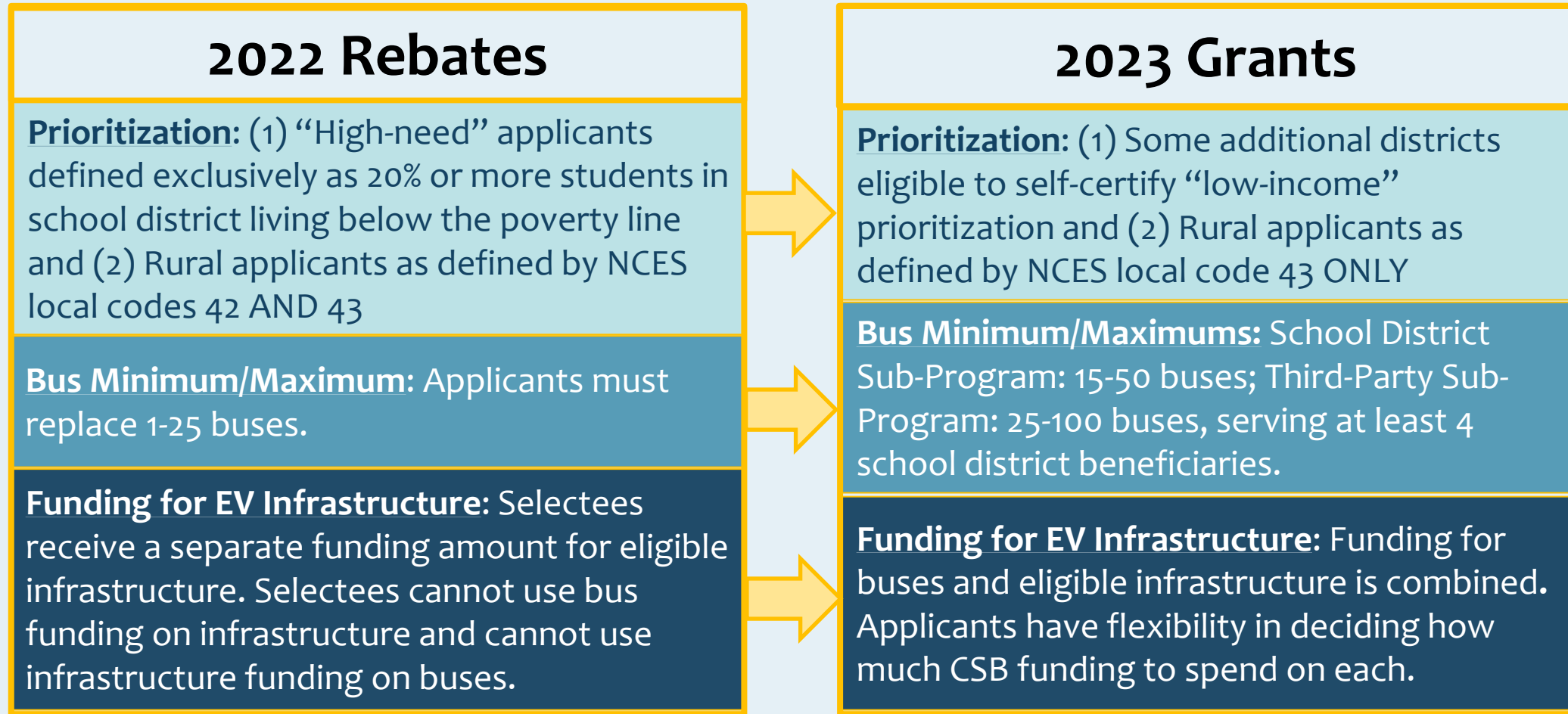


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Differences Between the 2022 Rebates and 2023 Grants

In addition to the differences between an EPA rebate and grant, generally, some program requirements differ between the two CSB funding opportunities, including, but not limited to:



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2023 CSB Grant Program Overview

EPA anticipates awarding approximately **\$400 million** in CSB funding under this FY23 Notice of Funding Opportunity (NOFO).

This NOFO **includes two sub-programs**, one for school district and Tribal applicants (School District Sub-Program) and one for third-party applicants (Third-Party Sub-Program).

Eligible activities include the replacement of existing internal-combustion engine (ICE) school buses with electric, propane, or compressed natural gas (CNG) school buses, as well as the purchase and installation of electric vehicle supply equipment (EVSE) infrastructure.

The CSB program statute enables the program to target communities with environmental justice concerns, that is, communities adversely and disproportionately affected by environmental, climate change, and human health harms or risks, and support a broad geographic distribution of funds.



CSB Grant Program Structure

School District Sub-Program

Eligible entities: (1) State and Local Governmental Entities (e.g., school districts), (2) Public Charter School Districts, and (3) Indian Tribes, Tribal Organizations, or Tribally-controlled Schools

Minimum of 15 buses
Maximum of 50 buses

Targeting large single-fleet turnovers that may have been limited by the 25-bus maximum in the rebate program.

Third-Party Sub-Program

Eligible entities: (1) Nonprofit School Transportation Associations and (2) Eligible Contractors (including OEMs, Dealers, and Private Bus Fleets)

Minimum of 25 buses
Maximum of 100 buses
Application must include at least 4 school district beneficiaries.

Targeting school districts - particularly small, rural, Tribal, or low-income beneficiaries - that may benefit from third-party technical support, grant administration, and coordination (e.g., with utilities)

Prioritization Criteria

2023 CSB Grants*

*Please note that program criteria may be different from prior CSB funding opportunities and are subject to change in future rounds of CSB funding

The Bipartisan Infrastructure Law allows EPA to prioritize certain communities that will benefit from the CSB program. For this funding opportunity, prioritized communities include:

HIGH-NEED SCHOOL DISTRICTS AND LOW-INCOME AREAS

- School districts listed in the Small Area Income and Poverty Estimates (SAIPE) School District Estimates for 2021 as having 20% or more students living in poverty.
- School districts located in the U.S. Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands.
- Title I-funded public school districts and charter school districts not listed in the SAIPE data.
- Title I-funded large public-school districts (more than 35,000 students and/or more than 45 public schools) that do not meet the 20% SAIPE threshold.

RURAL

- School districts identified with locale code “43-Rural: Remote” by the National Center for Education Statistics (NCES).

BUREAU OF INDIAN AFFAIRS FUNDED SCHOOL DISTRICTS

SCHOOL DISTRICTS THAT RECEIVE BASIC SUPPORT PAYMENTS FOR CHILDREN WHO RESIDE ON INDIAN LAND



Applications due Tuesday, August 22
www.epa.gov/cleanschoolbus

CSB Funding per Replacement Bus

School District Prioritization Status	Replacement Bus Fuel Type and Size					
	ZE* – Class 7+	ZE* – Class 3-6	CNG– Class 7+	CNG – Class 3-6	Propane – Class 7+	Propane – Class 3-6
Buses serving school districts that meet one or more prioritization criteria	Up to \$395,000 (Bus + Charging Infrastructure)	Up to \$315,000 (Bus + Charging Infrastructure)	Up to \$45,000	Up to \$30,000	Up to \$35,000	Up to \$30,000
Buses serving school districts that are not prioritized	Up to \$250,000 (Bus + Charging Infrastructure)	Up to \$195,000 (Bus + Charging Infrastructure)	Up to \$30,000	Up to \$20,000	Up to \$25,000	Up to \$20,000

Vehicle and Infrastructure Costs: Eligible project costs include the purchase price of eligible vehicles as shown on this slide and electric vehicle supply equipment (EVSE) infrastructure for new electric buses

Project Implementation Costs: Eligible additional project costs also include those costs directly related to the implementation, management, and oversight of the project. Please refer to the NOFO for additional specific information.

**Funding levels include combined bus and EV charging infrastructure. Recipients have flexibility to determine the split between funding for the bus itself and the supporting infrastructure.*



Application packages must be submitted to EPA via [Grants.gov](https://www.grants.gov) no later than 8/22/23 at 11:59 p.m. ET. For more information, please visit www.epa.gov/cleanschoolbus.



FY23 Clean School Bus Grants NOFO Important Dates

April 24, 2023	Notice of Funding Opportunity (NOFO) Opens
May 10-August 9, 2023	Webinar series - all slides will be posted online epa.gov/cleanschoolbus/events-related-clean-school-bus-program
August 9, 2023	Final Date to Submit Questions
August 22, 2023 at 11:59 p.m. (ET)	NOFO Closes – Application Deadline <i>Application packages must be submitted electronically to EPA through Grants.gov (www.grants.gov) no later than Tuesday, August 22, 2023, at 11:59 p.m. Eastern Time (ET) in order to be considered for funding</i>
November 2023 to January 2024	Anticipated Notification of Selection
February to March 2024	Anticipated Awards



Application packages must be submitted to EPA via Grants.gov no later than 8/22/23 at 11:59 p.m. ET.
For more information, please visit www.epa.gov/cleanschoolbus.



Clean School Bus 2nd Report to Congress



Features program highlights for FY22, including:

- 2022 CSB Rebates program
- Stakeholder outreach and coordination
- Program next steps

epa.gov/cleanschoolbus/clean-school-bus-csb-reports-congress

Inflation Reduction Act (IRA)

EPA Funding includes:

- \$3B for new Clean Ports Program
- \$1B for Class 6-7 HD zero-emission vehicles
- \$60M for Diesel Emissions Reduction Act

EPA has hosted public listening sessions to collect feedback on program design.

EPA is currently reviewing Request For Information (RFI) for these funding opportunities.

epa.gov/inflation-reduction-act



Stay in Touch

- View the full 2023 CSB Grant NOFO at epa.gov/cleanschoolbus/clean-school-bus-program-grants
- Submit questions to cleanschoolbus@epa.gov
- Don't miss any updates! Visit epa.gov/cleanschoolbus to sign up for the listserv



**EPA CLEAN
SCHOOL BUS**



Thank You!

epa.gov/cleanschoolbus

Reference Slides

School Bus Replacement Funding

The maximum rebate amount per bus is dependent on:

- Bus Fuel Type
- Bus Size
- Meets one or more prioritization criteria

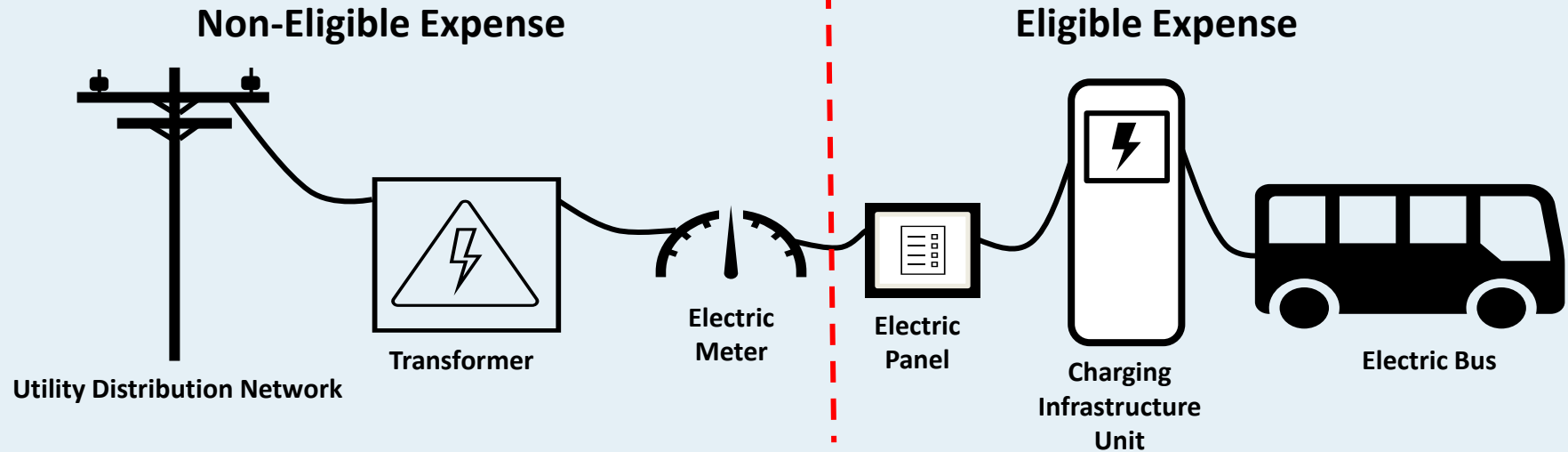
School District Prioritization Status	Replacement Bus Fuel Type and Size					
	ZE – Class 7+	ZE – Class 3-6	CNG – Class 7+	CNG – Class 3-6	Propane – Class 7+	Propane – Class 3-6
Buses serving school districts that meet one or more prioritization criteria	\$375,000	\$285,000	\$45,000	\$30,000	\$30,000	\$25,000
Buses serving other eligible school districts	\$250,000	\$190,000	\$30,000	\$20,000	\$20,000	\$15,000

The table displays maximum funding levels up to 25 buses. EPA will not disburse rebate funds in excess of the actual cost of the replacement bus **and any costs above the maximum funding level are the sole responsibility of the applicant/awardee.**



Infrastructure Funding

Zero-emission buses only



School District Prioritization Status	ZE – Class 3+ Infrastructure Funding
Buses serving school districts that meet one or more prioritization criteria	\$20,000
Buses serving other eligible school districts	\$13,000

The table displays maximum funding levels up to 25 buses. EPA will not disburse rebate funds in excess of the actual cost of the replacement bus **and any costs above the maximum funding level are the sole responsibility of the applicant/awardee.**





What is Build America, Buy America (BABA)?

- Certain infrastructure projects are subject to BABA provisions of the Bipartisan Infrastructure Law (BIL), also known as the Infrastructure Investment and Jobs Act (IIJA).
- These require that all the iron, steel, manufactured products and construction materials used in federal infrastructure projects are produced in the U.S.

Do BABA requirements Apply to the Clean School Bus Program?

- EPA has determined that school buses are **NOT** subject to BABA requirements
- Electric Chargers (EVSE) **ARE** subject to BABA
 - EPA is seeking a temporary waiver from BABA requirements for charging infrastructure similar to the Federal Highway Administration's [Waiver of Buy America Requirements for Electric Vehicle Chargers 88 FR 10619](#).
 - Please monitor [EPA's Build America, Buy America website](#) for updates regarding programmatic waivers or further BABA guidance.

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For more information, please visit www.epa.gov/cleanschoolbus.

2022 CSB Rebates Withdrawals

Some rebate selectees have requested to withdraw from the 2022 CSB Rebate Program. CSB HQ and Regional staff along with JOET have been working to provide technical assistance and support to selectees requesting to withdraw.

Feedback from selectees requesting to withdraw indicates that the main reasons for withdrawal include

- **costs greatly exceeding the rebate amount,**
- **lack of qualified service/repair technicians in rural areas,**
- **school boards voting against the project,**
- **and concerns about performance of electric buses in cold weather/on long bus routes.**

*Numbers current as of May 11, 2023



Steps in Fleet Electrification

1 - Choose your fleet composition and complete a route analysis

- What is your route length, topography, and number of stops?
- What are the ambient temperatures in your area?
- What is your bus load (number of passengers)?

2 - Infrastructure planning and conduct a depot assessment to calculate up-front installation and operating costs with your local utility

- What is your existing power supply?
- What charging infrastructure is most appropriate for your fleet and the installation costs?
- Are any electrical upgrades needed to support your electric fleet and what is the cost?
- How will electrifying your fleet affect your electricity costs?

3 – Select and install Electric Vehicle Supply Equipment (EVSE)

- What is the best charger type for your electric school bus fleet?
- Are these chargers compatible with your buses?
- Is there a certified electrical technician available to supervise EVSE installation and identify the installation timeline?

4 – Finalize your fleet composition

- Do your purchasing decisions agree with results of your route analysis?
- Do your chosen buses meet Clean School Bus Program eligibility requirements?
- Does the manufacturer offer data collection software to monitor your electric school bus fleet?

5 – Identify and train personnel needed to operate and maintain the fleet

- Who will be responsible for performing service and maintenance on the buses?
- Have drivers been trained on how to safely operate an electric school bus?
- Does everyone understand how to charge the bus and when the bus should be charged?

Electric School Bus (ESB) Myths

MYTH: ESBs can't operate in hilly terrain

FACT: ESBs may need to use more energy than a conventional bus while traveling uphill, but regenerative braking while traveling downhill can capture extra energy to extend the ESB's range

Regenerative braking can reduce the use of the brake system to about 5 times less than a conventional diesel vehicle.

Source: AFDC Flipping the Switch

MYTH: The initially high cost of an ESB will never be recouped

FACT: While the purchase price of an ESB may be higher, ESBs usually end up costing a fleet less over the lifetime of the bus

ESBs usually make up for their higher purchase costs within 13 years of operation and save over \$31,000 over the lifetime of the bus compared to a conventional diesel bus.

Source: Thomas Built Buses

MYTH: ESBs don't have enough range to cover a full school bus route

FACT: Most ESBs on the market have a range of about 100 miles, which is more than enough for most school districts

Type C ESBs have a range of up to 210 miles! If needed, buses can also be charged mid-day while not on the road to extend the range.

Source: WRI Electric School Bus Initiative

MYTH: ESBs don't work properly in cold climates

FACT: ESBs are still operational in cold climates but will use more energy to operate heaters, which can reduce range

A school district in Utah found that winter conditions cause ESB range to drop around 18%, but about 16% of additional range was gained through regenerative braking.

Source: WRI Electric School Bus Initiative